

AFANAS'EV, I.I.

GLASS, F.G., and I.I. AFANAS'EV

Obobshchennyi metod aerodinamicheskogo rascheta primenitel'no k vintam izmeniaemogo v polete shaga i vysotnym motoram. Moskva, 1940. 48 p., illus. (TSAGI. Trudy, no 468)

Title tr.: General method of the aerodynamic design of controllable pitch propellers and high altitude engines.

NCF

SO; Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

21.2100,24.6700

77212
SOV/89-8-1-6/29

AUTHORS: Nastyukha, A. I., Striganov, A. R., Afanas'yev, I. I.,
Mikhaylov, L. N., Oganov, M. N.

TITLE: Mass-Spectrometric and Spectroscopic Studies of an
Ion Source Hydrogen Discharge. Letter to the Editor

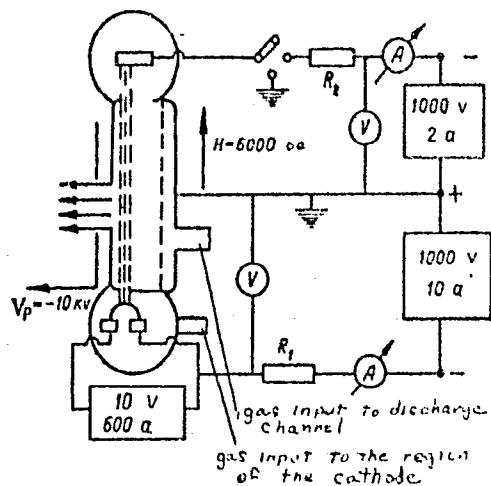
PERIODICAL: Atomnaya energiya, 1960, Vol 8, Nr 1, pp 44-46 (USSR)

ABSTRACT: During preliminary mass-spectrometric investigations
of the slit source of the 1.5 m cyclotron of the AS
SSSR, the authors found that a 20 x 2 mm surface
yields up to 60 ma of ion current, containing 95% of
protons or 80% of molecular hydrogen. In the present
paper they describe simultaneous measurements of the
 H^+/H_2^+ and H/H_2 ratios in an ion source, utilizing a
triple-prism Zeiss spectrograph with a camera objec-
tive of 840 mm focal length. Inverse line dispersion
was 38 A/mm in the 6,500 A region. The ion source
is given in Fig. 1. Atomic hydrogen was identified
using the first line of the Balmer series (6,562.79 A);
hydrogen molecules light intensity was taken as

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Fig. 1. Diagram of the ion source.

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proportional to average intensity of lines 6,031.90 Å and 6,018.29 Å. Authors investigated the ion and neutral particle ratios as functions of the gas flow, discharge current, and discharge potential. Figure 3 shows the variations of the absolute values of ion currents and spectral line intensities as functions of the gas flow. Spectral line intensities were proportional to the neutral particle concentration since, according to Ornstein and Linderman, the excitation cross sections are fairly constant in the region of electron energies used in this source. Points on the graphs correspond to a gas flow to the cathode region, and crosses are due to a gas flow straight to the discharge channel. The similar shape of the dissociation and ionization curves indicate that the ion production proceeds in two steps: first, a dissociation of H_2 , and then ionization of hydrogen. The better yield in the case of direct flow into the discharge region may be due to the larger number of molecules coming into contact with electrons, or, as pointed out by Kruithof

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Discharge. Letter to the Editor

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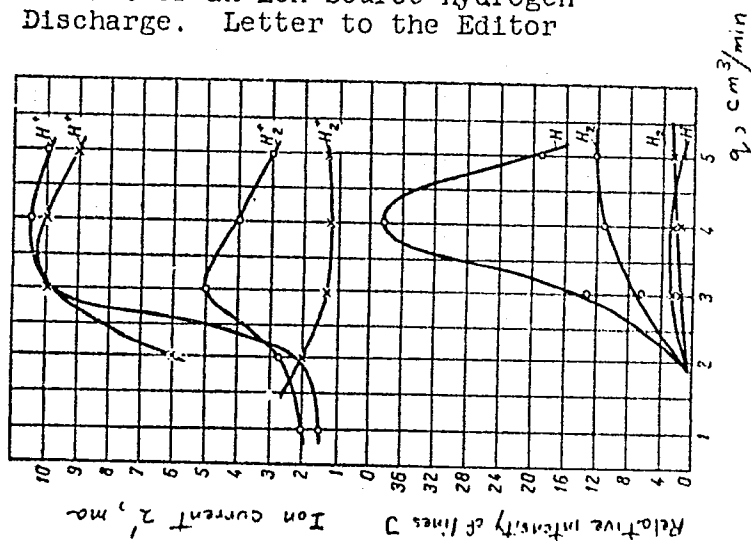


Fig. 3. Variation of
absolute values of
ion currents and
spectral line in-
tensities as functions
of gas flow at dis-
charge $I_d = 3a$ and
 $U_d = 160$ v.

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Mass-Spectrometric and Spectroscopic
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Discharge. Letter to the Editor

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and Ornstein, due to interaction with faster electrons.
There are 5 figures; and 5 references, 2 Soviet, 1
German, 1 Dutch, 1 U.S. The U.S. reference is: R.
Livingston, R. Jones, Rev. Scient. Instrum., 25, 552
(1954).

SUBMITTED: February 27, 1959

Card 5/5

247000

40573
S/070/62/007/005/008/014
E132/E460

AUTHORS: Nokiyeveskiy, V.A., Smirnova, Z.A., Afanas'yev, I.I.

TITLE: Joining crystals of lithium fluoride by a "dry" method

PERIODICAL: Kristallografiya, v.7, no.5, 1962, 768-772 + 1 plate

TEXT: When two polished crystal surfaces are brought into contact, processes connected with the ordering of the structure lead to the growing together of the crystals. Simultaneously annealing takes place. Hence, birefringence connected with the boundary surface is rarely found. If appreciable plastic deformation takes place on joining the surfaces together, because of the loading on surfaces of small radius of curvature, then slipping occurs and the wide range of orientations of the blocks leads to the formation of a large number of negative crystals at the interface. Large radii of curvature of the surfaces brought together and parallel orientation of the components appear to be the conditions for successful welding. The loading necessary has to be determined experimentally and the uniform distribution of load is one of the necessary conditions for successful joining. The time needed depends on temperature but for the best results subsequent annealing is more important
Card 1/2

Joining crystals of lithium ...

S/070/62/007/005/008/014
E132/E460

than trying to minimize the time for joining. The possibilities of producing large crystals by joining together several smaller blocks are obviously of great importance and further study is necessary. There are 4 figures. ✓

ASSOCIATION: Leningradskiy gornyy institut
(Leningrad Mining Institute)

SUBMITTED: November 21, 1961

Card 2/2

Okul'turivanie serykh lesnykh i podzolistykh pochv Chuvashskoi ASSR sposobom glubokoi pakhoty (Cultivation of gray forest soils and podzols of the Chuvash A.S.S.R. by means of deep plowing). 2-e, perer. i dop. izd. Pod red. i s predisl. I.N. Antipova Karataeva. Cheboksary, Gosizdat Chuvashsk. ASSR, 1953. 72p.

SO: Monthly List of Russian Accessions, Vol 7, No. 8, Nov. 1954

NEDIN, V.V.; NEYKOV, O.D.; BOSHNYAKOV, Ye.N.; AFANAS'YEV, I.I.

Study of a dust collector for fine cleaning of air sucked out
of aspirator housings. Sbor.nauch.trud.Kriv.fil.IGD AN URSSR
no.1:141-145 '62. (MIRA 16:4)

(Dust collectors)

L0049

S/089/62/013/002/002/011
B102/B104

24 6760

AUTHORS: Afanas'yev, I. I., Knyazyatov, A. S., Fedorov, N. D.

TITLE: Pulsed ion source with low gas consumption

PERIODICAL: Atomnaya energiya, v. 13, no. 2, 1962, 135-140

TEXT: The design and operation of two varieties of pulsed ion sources characterized by especially low gas consumption (10^{-3} cm³/pulse) are described. These operate on a principle stated by K. Ehlers et al. (Rev. Scient. Instrum., 29, 7, 614, 1958) using titanium disk electrodes impregnated with hydrogen or deuterium. In each case the discharge channel is a pile of these titanium disks stuck together by mica insulations in the first case and is built up under vacuum in the second. The individual disks, slightly impregnated, are separated by small plates of mica and insulated on both sides by rings of teflon. In both cases, good impregnation of the Ti disks is essential for the discharge. The deuterium current incident on the target (10 mm diameter) is determined by a beam catcher. In the two cases this reaches a strength of 30-40 and of 10 ma, the distances between detector and source being 50 and 120 cm,

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Pulsed ion source with low ...

S/089/62/013/002/002/011
B102/B104

respectively. The duration of one pulse is about 500 μ sec. Two electrodes in a special focusing apparatus serve to focus the beam as it emerges, from the source. If the number of disks in the pile is about 10 the source operates steadily, but with 12-15 disks the discharge becomes more difficult or even impossible to produce. The voltage drop in the discharge is 35-40 v and depends only slightly on the discharge current (20-275 a). The fact that the gas consumption is only 10^{-3} cm³/pulse at a discharge current of 215 a ensures that the beam current drops by 50% only after 2000-3000 pulses. There are 9 figures. ✓

SUBMITTED: November 1, 1961

Card 2/2

MOKIYEVSKIY, V.A.; APANAS'YEV, I.I.

Formation of skeletal cavities in lithium fluoride crystals.
Rost krist. 4:48-52 '64. (MERA 17:8)

SHAFRANOVSKIY, V.I., prof.; MOKHYEVSKIY, V.A.; AFANAS'YEV, I.I.

Elements of infinite symmetry in twins. Zap.Vses.min.ob-va
S1 no.5:572-573 '65.

(MIRA 18:11)

3. Deyatvitel'nyye chleny Vsesoyuznogo mineralogicheskogo
obshchestva (for Shafranovskiy, Mokiyovskiy).

8(5)

SOV/19-59-2-186/600

AUTHORS: Shklyarskiy, L.F., Afanas'yev, I.I., and Ivanov, L.L.

TITLE: An Electric Drive for a Multi-Bucket Dredger

PERIODICAL: Byulleten' izobreteniy, 1959, Nr 2, p 44 (USSR)

ABSTRACT: Class 21c, 62. Nr 117344 (592656 of 19 February 1958). An electric drive for a multi-bucket dredge with a multi-speed induction motor used for the bucket chain drive. It has an induction slide coupling used in the transmission between the motor shaft and the bucket group. The coupling permits the choice of the best suitable bucket speed for different kinds of ground.

Card 1/1

AFANAS⁴EV, I. I., Cand Tech Sci -- (diss) "Research into factors influencing the excavating of pile dredges." Moscow, 1960. 19 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Inst of Non-ferrous Metals im M. I. Kalinin); 150 copies; price not given; (KL, 17-60, 151)

AFANAS'YEV, I.I., kand.tekhn.nauk

Features of dredging deep-seated placer deposits. Gor. zhur. no.11:
39-42 N '61. (MIRA 15:2)

1. TSentral'nyy nauchno-issledovatel'skiy gornorazvedochnyy institut,
Moskva.

(Hydraulic mining)

AFANAS'YEV, I. I., kand. tekhn. nauk

Relationship between the design parameters of dredges and
dredger sections and the thickness of placer deposits. Gor. zhur.
no.10:40-44 0 '62. (MIRA 15:10)

1. TSentral'nyy nauchno-issledovatel'skiy gornorazvedochnyy
institut tsvetnykh, redkikh i blagorodnykh metallov, Moskva.

(Dredging machinery)

AFANAS'YEV, I.I.

Urgent task of redesigning dressing apparatus on drags. Gor. zhur no.4:
62-63 Ap '63. (MIRA 16:4)

1. TSentral'nyy nauchno-issledovatel'skiy gornorazvedochnyy institut
tsvetnykh, redkikh i blagorodnykh metallov, Moskva.
(Ore dressing--Equipment and supplies)

SHELEKETIN, A.V.; AFANAS'YEV, I.I.

Dust removal from hammer mills. Metallurg 9 no.4:15 Ap '64.
(MIRA 17:9)

1. Krivorozhskiy filial Instituta gornogo dela imeni Fedorova.

SHELEKETIN, A.V.; AFANAS'YEV, I.I.

Dust removal from four-roll crushers. Metallurg 9 no.12:15-16
D '64. (MIRA 18:2)

1. NIIMetallurgventilya'siya.

SHELEKETIN, A.V.; MIKHEL'SON, M.L.; AFANAS'YEV, I.I.; MALEVICH, A.A.; GENERALOV, G.S.

Condensation dust collectors for gas purification. Metallurg 10
no.10:14-15 0 '65. (MIRA 18:10)

1. NIIMetallurgventilyatsiya i Yuzhnyy gornoobogatitel'nyy kombinat.

AFANAS'YEV, I.N.; MOROZOV, M.V.; TETEL'BAUM, A., red.

[Diagnostics and specialization in the maintenance and repair of motor vehicles; from the work practice of automotive transportation units of the Latvian S.S.R.] Diagnostika i spetsializatsiia v tekhnicheskome obsluzhivanii i remonte avtomobilei; iz opyta raboty avtokhoziaistv Latviiskoi SSR. Riga, Latviiskoe gos. izd-vo, 1964. 118 p. (MIRA 18:4)

AFANASEV, I. N.

AFANASEV, I. N.

Experiments with physical exercises for inhibited and agitated
catatonics. Nevropat. psikhiat., Moskva 19:3, May-June 50. p. 38-41

1. Moscow Psychiatric Hospital imeni P. P. Kashchenko (Head Physician--
I. N. Kaganovich).

CIHL 19, 5, Nov., 1950

AFANAS'YEV, I.N.

Effect of exercise therapy on changes of respiratory functions following surgery. Khirurgiia, Moskva no. 6:31-36 June 1952.

(CIML 22:4)

1. Of the Department of Physical Education and Therapeutic Physical Culture (Head -- I. N. Afanas'yev), Ishevsk Medical Institute.

AFANAS'YEV, I. N.

"Measurement of Mobility of the Abdominal Wall in Man During Respiration,"
Klin. Med., 30, No.2, 1952

AFANAS'YEV, I.N.

Method for studying respiratory motion of the ribs. Probl.tub.
36 no.4:108-110 '58 (MIRA 11:7)

1. Iz kafedry fizicheskogo vospitaniya Sverdlovskogo meditsinskogo
instituta.

(RIBS, physiology,
movements in resp. measurement in normal cond. & pulm.
tuberc. (Rus))

(TUBERCULOSIS, PULMONARY, physiology,
resp. movements of ribs (Rus))

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100																									
AFANAS'YEV, I. S.																									
Automatic determination of carbon monoxide in gas mixtures containing hydrogen. A. I. Kierman and I. S. Afanas'ev. <i>Zavodskaya Lab.</i> 9, 444-7 (1940).—The detn. of CO in H ₂ -contg. gas mixts. is based on the hydrogenation of CO to CH ₄ in the presence of Ni-Al catalyst in a modified mono-duplex gas analyzer. The analysis is carried out in two stages. In the first stage the CO ₂ is absorbed in alkali. In the second stage the CO ₂ is absorbed in alkali and then the residual gas is passed into an elec. oven where the CO is hydrogenated to CH ₄ . The vol. of the residual gas is then detd. to obtain the sum of the CO ₂ and CO, which is subtracted from the CO ₂ detd. in the first stage. The app. has been used for over seven months and the differences between the analytical detns. of CO and those made by this app. did not exceed 0.1-0.2%. Diagram of the app. is included. B. Z. Kamich																									
ASB 15A DETAILING LITERATURE CLASSIFICATION																									
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100																									

AUTHORS: Afanas'yev, I.S., and Kolendovskiy, A.S., Engineers SOV-91-58-11-13/20

TITLE: ~~A Defect in the Heads of Cut-off and Cut-in Electromagnets~~
of the UGP-51 Type Drives (Defekt boykov otklyuchayushchikh
i vklyuchayushchikh elektro-magnitov privodov tipa UGP-51)

PERIODICAL: Energetik, 1958, Nr 11, p 26 (USSR)

ABSTRACT: The author cites a case where a short circuit occurred in
an electric transmission line of 35 kv, and since the UGP-51
type drive from the remontno-mekhanicheskiy zavod Latvenergo
(Latvenergo Mechanical Repair Plant) failed to cut out, the
electric sub-station was de-energized. When the cause of
the breakdown was investigated, it was found that a washer
in the drive of the cut-out electromagnet had become unriv-
eted and had broken, thus preventing the head from "sticking"
in the upper position. Pieces of the washer had slipped down
between the sleeve and the head, jamming the latter. The

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AFANAS'YEV, I.S., inzh.

Experience in using the IKL-5 device in servicing electric lines.
Energetik 11 no.5:23 My '63. (MIRA 16:7)
(Electric lines--Maintenance and repair) (Electric measurements)

AFANAS'YEV, I.S., inzh.

Use of rectified operational current in a 35 kv. substation.
Elek. sta. 35 no.7:84-85 J1 '64. (MIRA 17:11)

AGAP'YEVA, N.E.; AFANAS'YEV, I.V.

Tuberculosis as a possible cause of chronic insufficiency
of the adrenal cortex. Probl. endok. i gorm. li no.4:38-42
Jl-Ag '65. (MIRA 18:11)

1. Otdel endokrinologii (nauchnyy rukovoditel' - deystvitel'nyy
chlen AMN SSSR prof. V.G. Baranov, Institut akusherstva i
ginekologii (dir. - chlen-korrespondent AMN SSSR prof. M.A.
Petrov-Maslakov) AMN SSSR, Leningrad i kafedra legochnogo
tuberkuleza (zav. - prof. A.Ya. TSigel'nik) i Leningradskogo
meditsinskogo instituta imeni Pavlova.

TSIGEL'NIK, A.Ya.; KOSTINA, Z.I.; GRIGOR'YEVA, V.I.; AFANAS'YEV, I.V.;
LEVITIN, Ya.M.; SHAPIRO, B.Ya. (Leningrad)

Pathogenesis of amyloidosis in tuberculous patients and diagnosis
of its reversible forms. Klin.med. no.12:14-21 '61.

(MIRA 15:9)

1. Iz kafedry tuberkuleza (zav. - prof. A.Ya. TSigel'nik) I
Leningradskogo meditsinskogo instituta imeni I.P. Pavlova.
(TUBERCULOSIS) (AMYLOIDOSIS)

ACC NR: AP6018008

(N)

SOURCE CODE: UR/0413/66/000/010/0125/0125

INVENTOR: Afanas'yev, I. V.

ORG: none

TITLE: A device for soldering with high frequency currents in vacuum. Class 49, No. 181963

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 10, 1966, 125

TOPIC TAGS: solder, soldering, metal soldering, low temperature metal, high temperature metal

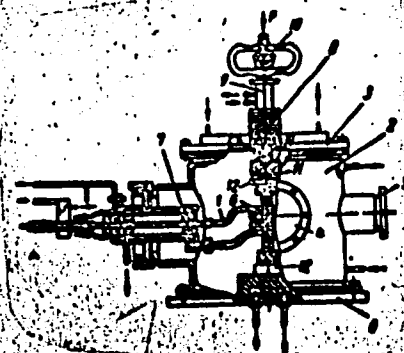
ABSTRACT: This Author Certificate presents a device for soldering high-melting and low-melting metals with high frequency currents. The device consists of an interchangeable inductor and a water-cooled container with a charging port, inspecting aperture, and a flanged port for connecting to the vacuum system (see Fig. 1). To produce local heating only in the place to be soldered and to exert an adjustable pressure on the parts to be soldered (so as to improve their positioning in respect to one another) the inductor is placed inside the container and is provided with an hermetically sealed current lead. A bellows mechanism allows a water-cooled shaft to pass into the container. The outer end of the shaft carries a spring indicator for measuring the pressure. The opposite internal end is hemispherical and bears through a ball with chunks to produce a uniform pressure onto the soldered details.

Card 1/2

UDC: 621.791.367.03

ACC NR. AP6018008

Fig. 1. 1 - interchangeable inductor; 2 - container;
3 - charging port; 4 - inspecting aperture;
5 - port for connecting to the vacuum system;
6 - details to be soldered; 7 - current lead;
8 - bellows mechanism; 9 - shaft; 10 - spring
indicator; 11 - ball; 12 - chuck



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 19Oct64

Cord 2/2

36489

S/125/62/C00/C05/007/010
D040/D113

1.2000
AUTHORS: Afanas'yev, I.V. and Khudyshev, A.F. (Moscow)
TITLE: Investigation of diffusion welding in application for electronic instruments
PERIODICAL: Avtomaticheskaya svarka, no. 5, 1962, 57-63

TEXT: Two units for vacuum diffusion welding metal and metalloceramic parts of electric vacuum devices are described. Pressure is exerted by a hydraulic press on which the welding chamber is mounted, and is applied to the weldments by a rod in the vacuum chamber connected to the top chamber cover by a bellows joint. One unit accommodates weldments up to 40 mm in diameter and 100 mm in height, the other up to 150 mm in diameter and 200 mm in height. The 2 units have cylindrical quartz and cylindrical steel vacuum chambers respectively, with induction heaters on the outside (unit 1) or inside (unit 2), the chambers being mounted on 4 and 10 t hydraulic presses respectively. The heaters are supplied with h-f current from generators of 8 and 20 kw capacity. The weldment temperature is measured by thermocouples, and the pressure by dynamometers. Chamber evacuation

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S/135/63/000/004/008/012
A006/A101

AUTHORS: Afanas'yev, I. V., Kosichkin, N. V., Khudyshev, A. F.,
Elbakidze, V. G., Engineers

TITLE: Diffusion welding in a vacuum and in controlled atmosphere

PERIODICAL: Svarochnoye proizvodstvo, no. 4, 1963, 28 - 29

TEXT: A description is given of a unit for diffusion welding of metal and sinters in a vacuum and controlled atmosphere. The unit includes electric equipment, a vacuum system, a hydraulic system, and a cooling system. The hydraulic system secures forces required for the compression of the welded parts, and smooth pressure control in two stages (50 - 100 kg and 1,000 - 10,000 kg pressure). A smooth control of the pressure in the hydraulic system (6 - 65 atm) is performed with the aid of a "pressure control" lever. The air in the vacuum chamber is evacuated by a forevacuum and vapor-oil pump. The unit includes a device for the filling of the operational chamber with hydrogen. The cooling system is intended to secure the normal operation of the vapor-oil pump and the cooling of the inductor. Optimum conditions are given for welding titanium with titanium, titanium with

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Diffusion welding in a vacuum and in...

S/135/63/000/004/008/012
A006/A101

copper MB(MB); AMu(AMts) alloy with AMts alloy, nickel with nickel, MB copper with AMts alloy, "covar" with MB copper; MB copper with MB copper, and covar with covar. It was found that the quality of diffusion welding is considerably affected by clean machining and the preparation of the surfaces. Good results are obtained if the surfaces of the parts are machined with a cutter to $\nabla 7$ roughness. Prior to welding the parts should be subjected to surface etching with subsequent washing in alcohol or chemically pure acetone. The method was used in welding electronic device parts. There are 5 figures and 1 table.

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37050

S/019/62/000/005/058/061

A154/A126

1.2200
AUTHORS: Afanas'yev, I.V.; Metelkin, I.I.; Makarkin, A.Ya.; Ivanov, V.P.

TITLE: A method of bonding ceramics to metals

PERIODICAL: Byulleten' izobreteniy, no. 5, 1962, 62

TEXT: Class 49h, 3403. No. 145436 (699784/25 of February 17, 1961). A method of bonding ceramics to metals with the use of heating and pressure, distinguished by the fact that, in order to obtain a sound bond, the process is performed in an atmosphere of humidified hydrogen. *+*

Card 1/1

J. V. Afanas'yev

Welding
USSR
Ne

S/125/62/000/009/008/008
A006/A101

AUTHOR: Koval'skiy, L. S.

TITLE: The Second Scientific-Technical Conference on diffusion welding in a vacuum of metals, alloys and non-metallic materials

PERIODICAL: Avtomaticheskaya svarka, no. 9, 1962, 93 - 94

TEXT: The Second Conference on diffusion welding was held in Moscow on May 24 - 26. It was opened by M. P. Ivanov, Deputy Chief of Mosoblosovnnarkhoz. The following reports were delivered: N. F. Kazakov, Candidate of Technical Sciences, Professor: the use of diffusion welding in a vacuum and its further outlooks; V. D. Taran, Doctor of Technical Sciences: the use of diffusion welding in a vacuum for main pipelines; V. Z. Vysotskiy, I. P. Iudin, S. Ye. Ushakova: diffusion welding in enterprises of the Gorkiy economical region; Engineer V. F. Kvasnitskiy: the possibility of using vacuum diffusion welding for heat-resistant materials; Engineers V. N. Moiseyev, G. O. Smirnov: welding cermet brake disks; Candidate of Technical Sciences, I. I. Metelkin: vacuum diffusion welding of non-metallized mineral ceramics with metals; Engineers A. F. Khudyshev, I. V.

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The Second Scientific-Technical Conference on...

S/125/62/000/009/008/008
A006/A101

Afanas'yev, R. S. Karakozov: on the replacement of brazing, argon-arc and spot welding by diffusion welding; Candidate of Technical Sciences K. G. Alekseyev: vacuum diffusion welding of a loom cam; Engineers N. A. Mashkova and I. G. Gorin: vacuum welding of high-speed P18 (R18) steel; Candidate of Technical Sciences N. F. Kazakov: physical bases of vacuum diffusion welding of metals, alloys and non-metallic materials; Candidate of Technical Sciences E. I. Vrzhashch: adhesion sensitivity of a cyanided layer produced on a vacuum diffusion welding machine; Engineer A. V. Krivoshey: vacuum diffusion welding of refractory metals; Engineer K. Ye. Charukhina: peculiarities of diffusion welding materials forming intermetallic compounds in interaction; Engineer V. S. Il'yin: joining strongly quenched 3 XHA (3XHA) steel with cast bronze along a spherical surface; I. D. Alekseyev, V. Z. Vysotskiy, I. V. Kupriyanov, P. I. Shestkov, and V. G. Elbakidze: the design of vacuum diffusion welding units; Engineer A. V. Krivoshey: control of welded joints produced by vacuum diffusion welding. Engineer N. N. Sokolova: the economical efficiency of using vacuum diffusion welding. The Conference decided to promote further development of vacuum diffusion welding and discussed the scientific research work planned for 1963.

Card 2/2

AFANAS'YEV, I. Ye., Cand Med Sci -- (diss) "On the Action of
Manganese upon the Cardiovascular System." Khar'kov, 1957. 18 pp
(Khar'kov Med Inst), 200 copies (KL, 51-57, 93)

- 29 -

AFANAS'YEV, K.

Success of collective farm builders in Ryazan Province.
Sel'.stroj. 11 no.12:3-5 D '56.

(MLRA 10:2)

1. Nachal'nik Ryazanskogo oblastnogo upravleniya po
stroitel'stvu v kolkhozakh.
(Ryazan Province--Farm buildings)

AFANAS'YEV, K.

Expand the use of progressive practices in construction.
Sel'.stroi. 15 no.5:1-2 My '60. (MIRA 13:8)

1. Nachal'nik Ryazanskogo oblastnogo upravleniya po stroitel'stvu
v kolkhozakh.

(Ryazan Province--Building)

AFANAS'YEV, K., INZH. (Kiyev)

New method. Grazhd.av. 17 no.7:20-21 J1 '60. (MIRA 13:8)
(Airplanes--Engines)

AFANAS'YEV, K., svinar'; GUSEVA, N., red.; NAGIBIN, P., tekhn.
red.

[Twelve centners of meat from each brood sow] 12 tsent-
nerov miasa - na osnovnuiu svinomatku. Alma-Ata, Kazakhskoye
khozgiz, 1962. 26 nos. in 1 v. 14 p. (MIRA 17:1)

1. Sovkhoz No.4 Karagandinskoy oblasti Kazakh.SSR (for
Afanas'yev).

APANAS'YEV, Konstantin Arkad'yevich, inzh.; GRECHIN, Modest Alekseyevich, inzh.; KORCHAGIN, Mikhail Ivanovich, kand.tekhn.nauk; LOGINOV, Sergey Petrovich, kand.ekon.nauk; MIROSHNICHENKO, Il'ya Petrovich, kand.tekhn.nauk; RAPOPORT, Leonid Il'ich, kand.tekhn.nauk; SYROMYATNIKOV, Viktor Fedorovich, kand.tekhn.nauk. Prinimali uchastiye: RAYEVSKAYA, Ye.A., inzh.; GRIGOR'YEV, Ya.I., inzh. STRUMPE, P.I., red.; MARCHUKOVA, M.G., red.izd-va; LAVRENOVA, N.B., tekhn.red.

[Modernization of seagoing cargo vessels] Modernizatsiya morskikh transportnykh sudov. Pod obshchei red. P.I.Strumpe. Moskva, Izd-vo "Morskoi transport," 1960. 306 p.

(MIRA 14:1)

(Freighters--Equipment and supplies)

~~AFANASYEV, K.A.~~

Selecting a type of evaporator plant for seagoing cargo and passenger
steamships. Inform. sbor. TSNIME no.69 Tekh. ekspl. mor. flota no.12;
79-89 '61. (MIRA 16:3)
(Steam navigation) (Evaporating appliances)

LEVIN, B.M., kand. tekhn. nauk; PERSHIKOV, L.F.; GOL'DENFON, A.K.,
kand. tekhn. nauk; AFANAS'YEV, K.A.; STRUMPE, P.I., kand.
tekhn. nauk, otv. red.; SUSHKOVA, T.I., red.; KOTLYAKOVA,
O.I., tekhn. red.

[Methods of testing thermodynamic processes in marine steam
turbine plants] Metodika teplotekhnicheskikh ispytaniy sudovykh
paroturbinnnykh ustanovok. Leningrad, Izd-vo "Morskoi trans-
port," 1962. 118 p. (MIRA 16:9)

1. Leningrad. Tsentral'nyy nauchno-issledovatel'skiy institut
morskogo flota.

(Steam turbines, Marine)

AFANAS'YEV, K.A.

Minor modernization of the series-built evaporating system
on steam-turbine propelled ships of the type "Leninskii
Komsomol" and "Pekin". Inform. sbor. TSNIIMF no.135 Tekh.
ekspl. mor. flota. 28:56-79 '64. (MIRA 18:17)

AFANAS'YEV, K. F. Measuring Temperature of Armature Winding in D-C Generators
(Izmereniye Temperatury Obmotki Yakorya Generatorsa Postoyannogo
Toka), pp. 15-16

An experiment with measuring temperature by means of thermo-couples is described.
(Table and graph).

SO: PROMYSHLENNAYA ENERGETIKA, No. 11, Nov. 1952, Moscow (1613006)

AFANAS'YEV, K. F.

AFANAS'YEV, K. F. --"Roentgenographic Investigation of Crystallites and Elementary Distortions in Fatigue Breaks of Steel Parts." Min Education RSFSR. Moscow, 1956. (Dissertation for the Degree of Candidate in Physicomathematical Sciences).

So: Knizhnaya letopis', No 8, 1956, pp 97-103

AFANAS'YEV, K.F.; TERMINASOV, Yu.S.

X ray examination of distortions of atomic crystal lattices in fractures in steel parts due to fatigue. Izv.AN Kir.SSR no.6: 79-88 '58. (MIRA 11:12)

(Steel--Metallography)

AFANAS'YEV, K.F.

X-rays investigation of fatigue in metals. Uch. zap. GGPI no.8:108-
124 '58. (MIRA 13:8)

(Metals--Fatigue)
(X rays--Industrial applications)

AFANAS'YEV, K. I.

Afanas'yev, K. I.

"Problems in the Theory of Regulating Truck-Tractor Engines by Changing the Number of Strokes." Min Higher Education USSR. Moscow Order of Labor Red Banner Higher Technical School imeni Bauman. Tashkent, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya letopis' No. 27, 2 July 1955

IONAT, Askol'd Aleksandrovich; AFANAS'YEV, K.F., dots., retsenzent;
PARFENOV, A.N., dots., retsenzent; KOZLOVSKIY, S.S., dots.,
red.

[Solid state physics; methodological textbook for correspond-
ence students of the Grozny Petroleum Institute] Fizika
tverdogo tela; uchebno-metodicheskoe posobie dlia studentov-
zaochnikov Groznenskogo neftianogo instituta. Grozny,
Groznenkii neftianoi in-t, 1964. 113 p. (MIRA 18:3)

1. Checheno-Ingushskiy gosudarstvennyy pedinstitut (for
Afanasyev).
2. Groznenskiy neftyanoy institut (for Parfenov).
3. Kafedra fiziki Groznenskogo neftyanogo instituta (for
Kozlovskiy).

ACCESSION NR: AP4012354

S/0142/63/006/006/0602/0610

AUTHORS: Afanas'yev, K. L.; Kolesov, L. N.

TITLE: Theoretical investigation of the parameters of a flat inductance coil situated between two ferromagnetic nonconducting media

SOURCE: IVUZ. Radiotekhnika, v. 6, no. 6, 1963, 602-610

TOPIC TAGS: microelectronics, microsystem electronics, thin film circuit, circuit element, film inductance, inductance coil, integrated circuit, magnetic material, magnetic permeability, dielectric constant

ABSTRACT: For the purpose of investigating the influence of the properties of materials and of the frequency on the parameters of micro-electronic film-type equipment using inductance coils (high-frequency transformers, chokes, or tank circuits), a model is considered in which a flat current carrying coil is situated between two nonconducting media with different permeabilities and permittivities. The

Card 1/2

ACCESSION NR: AP4012354

effect of the electromagnetic properties of the nonconducting environment on the parameters of a flat-turn or spiral inductance coil is studied at radio frequencies. The theoretical analysis leads to formulas that permit engineering design of such coils. A formula is derived for the inductance of a flat turn situated on the interface between the two different media. It is shown that this inductance exceeds that of a turn in vacuum by a factor $\mu' = 2\mu_1\mu_2/(\mu_1 + \mu_2)$.

It is shown further that if ferromagnetic material is placed only on one side of a flat coil, this factor is at its maximum value (~ 2) regardless of the value of the permeability. Orig. art. has: 7 figures and 28 formulas.

ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut (Taganrog Radio Institute)

SUBMITTED: 13Dec62

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: GE. SD

NO REF SOV: 004

OTHER: 001

Card 2/2

PROZOROVSKIY, V.Ye.; KOLESOV, L.N.; SEMENTSOV, V.I.; AFANAS'YEV, K.L. —

Analysis of some inductive and reactive parameters of transistors. Izv. vys. ucheb. zav.; radiotekh. 6 no.6:616-622
N-D '63. (MIRA 17:1)

1. Rekomendovana kafedroy konstruirovaniya i proizvodstva radioapparatury Taganrofskogo radiotekhnicheskogo instituta.

ACCESSION NR: AP5005985

S/0108/65/020/002/0062/0068

AUTHOR: Afanas'yev, K. L. (Active member), G. I. Iushenko, V. B. (Active member)

TITLE: Theoretical investigation of parameters of film RC-circuits

SOURCE: Radiotekhnika, v. 20, no. 2, 1965, 62-68

TOPIC TAGS: RC filter, film RC circuit

ABSTRACT: RC-circuits are treated as passive linear quadripoles describable by

these classical equations:
$$\left. \begin{aligned} U_2 &= AU_1 - BI_1 \\ I_2 &= -CU_1 + DI_1 \end{aligned} \right\} \text{The coefficients } A, B, C, D \text{ are}$$

found by solving a convolution-type Volterra integral: the latter's solution (10) is written in terms of its resolvent. The theoretical analysis verified experimentally shows that, with α increasing, the modulus of the transfer factor of a film RC-

Cord 1/2

ACCESSION NR: AP5005985

circuit drops much more quickly than that of a concentrated-parameter circuit. Thus, the film circuit used as a low-pass filter would have a sharper cutoff than conventional filters. The phase characteristic of concentrated-parameter circuits approaches a constant value while that of film circuits drops abruptly (to $-\infty$). On the whole, the transfer-factor vs. frequency relation is much sharper in film RC-circuits than in conventional filters. The factor α is given as:

$\alpha = \frac{1}{2h} \omega R_0 b \epsilon \epsilon_0$, where ϵ_0 is the dielectric constant of free space. Engineering design formulas for film RC-circuits are developed. Orig. art. has: 5 figures and 3 formulas.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radioelektroniki i elektrosvazi
 (Soviet Union) Association of Scientific Organizations of Radioelectronics and Electrosynthesis

SUBMITTED: 10Sep63

EX-1

REF CODE: EC

NO REF SOV: 001

OTHER: 1

Cord 2/2

ACCESSION NR: AP4042848

S/0142/64/007/003/0316/0321

AUTHOR: Prozorovskiy, V. Ye.; Kolesov, L. N. (Docent); Afanas'yev, K. I. B

TITLE: Stability of the Q-factor in an inductive circuit with p-n junctions

SOURCE: IVUZ. Radiotekhnika, v. 7, no. 4, 1964, 315-321

TOPIC TAGS: p n p transistor, reactive transistor, inductive transistor, Q factor stability, collector voltage effect, collector voltage stability, Q factor measuring bridge

ABSTRACT: The relationship between the Q-factor stability of inductive and reactive transistors and voltage under conditions of collision ionization in a collector junction was investigated. The cause of the Q instability was analyzed. It was shown that with the introduction of a loss-compensating negative resistance into the circuit, the Q-factor stability sharply decreases. Therefore, a large increase in Q is undesirable. The inductance of the discussed circuit depends only slightly on the collector voltage. If a considerable improvement of

Card 1/2

ACCESSION NR: AP4042848

the Q-factor is necessary special measures for supply voltage regulation must be taken. The Q-factor is determined by a five transistor circuit as a function of collector voltage. It is determined experimentally. A bridge with an oscillator generator was used. This permitted the measurement of the Q-factor from 0.1 to 10 within the frequency range of 100 kHz to 1 MHz with a 20 per cent accuracy at 50 mv. Orig. art. has 11 figures and 24 formulas.

ASSOCIATION: none

SUBMITTED: 04Feb63

ATD PRESS: 3101

ENCL: 00

SUB CODE: EC

NO REF SOV: 002

OTHER: 004

Card 2/2

AFANAS'YEV, K.L.; GOLOVCHENKO, V.B.

Theoretical studies of the parameters of RC film circuits.
Radiotekhnika 20 no.2:62-68 F '65. (MIRA 18:4)

1. Deystvitel'nyye chleny Nauchno-tekhnicheskogo obshchestva
radiotekhniki i elektrosvyazi imeni Popova.

L 1974-66

ACCESSION NR: AP5020922

UR/0142/65/008/003/0311/0316
621.317.329

AUTHOR: Zaks, D. I.; Kolesov, L. N. (Docent); Afanas'yev, K. L. 35B

TITLE: Modelling of integrated-circuit resistance and potential field in an electrolytic bath

SOURCE: IVUZ. Radiotekhnika, v. 8, no. 3, 1965, 311-316

TOPIC TAGS: integrated circuit, monolithic circuit, simulation test, model scaling

ABSTRACT: Modelling was used to determine the potential field and resistance between two contacts in various configurations located on the surface or inside a monolithic chip. The two- and three-dimensional models consisted of conducting paper and an electrolytic bath, respectively. The latter was a 0.05% CuSO_4 solution with immersed plexiglass dividers which could be easily rearranged. By using the bridge measurement method, the resistances between points could be determined with an accuracy of 1%. Fig. 1 of Enclosure is a typical pattern representing a configuration with disk contacts. The resistance between the contacts as a function of the disk parameters is plotted in Fig. 2. No single

Card 1/3

L 1974-66

ACCESSION NR: AP5020922

factor was found to exert a predominant influence on resistance. Resistance changed abruptly only when the slot depth reached 0.96 of the chip width for the 3-D model, or 0.7 for the two-dimensional model. The potential fields measured throughout the models were of such a character as to possibly cause resistance coupling between separate circuits. For the separation of different circuits, transverse slots may be utilized, but they are not as effective as reverse-biased p-n junctions. Orig. art. has: 9 figures and 2 formulas. [BD]

ASSOCIATION: none

SUBMITTED: 03Jan63

ENCL: 01

SUB CODE: EC

NO REF SOV: 006

OTHER: 003

ATD PRESS: 4090

Card 2/3

L 1974-66

ACCESSION NR: AP5020922

ENCLOSURE: 01

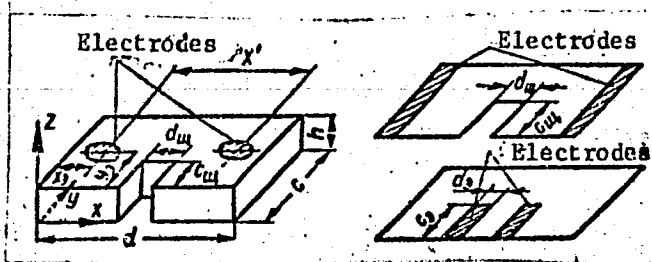


Fig. 1. Disk contacts

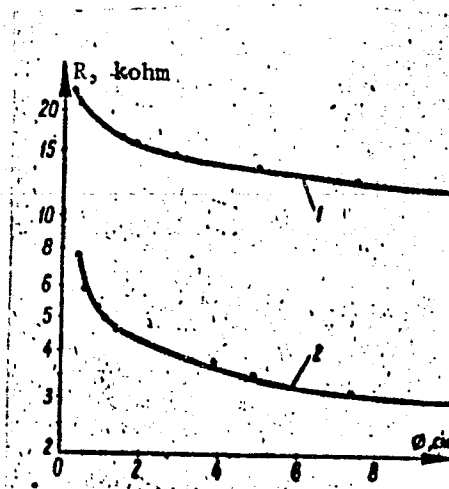


Fig. 2. Resistance between contacts as a function of disk parameters

Card 3/3 DP

L 8897-66	EWI(m)/EWP(b)/EWP(t)	JD
ACC NR: AP5026865	SOURCE CODE: UR/0108/65/020/011/0069/0074	
AUTHOR: ^{44.55} Prozorovskiy, V. Ye. (Active member); Afanas'yev, K. L. (Active member); ⁴⁴ Golovchenko, V. B. (Active member) ^{44.55} B		
ORG: Scientific and Technical Society of Radio Engineering and Electrocommunication (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova)		
TITLE: Effect of the film resistance on the frequency characteristics of film capacitors		
SOURCE: Radiotekhnika, v. 20, no. 11, 1965, 69-74		
TOPIC TAGS: microelectronic thin film, ^{44.55} thin film capacitor ¹⁴		
ABSTRACT: The effect of metal-film loss on the parameters of a 3-thin-film capacitor is theoretically analyzed, and practical formulas for designing such capacitors and circuits containing them are developed. Regarding the capacitor as a series RC-circuit, formulas for the loss resistance, Q-factor, and impedance for higher and lower frequencies are derived. Frequencies at which the current-voltage phase shift reaches 45° are considered; the impedance is largely determined by the film width and is independent of the film length. The frequency band that corresponds to $\leq 10\%$ error of the formulas is indicated. Orig. art. has: 3 figures and 32 formulas.		
SUB CODE: 09 / SUBM DATE: 04Apr64 / ORIG REF: 002 / OTH REF: 001		
Card 1/1	UDC: 621.319.443.4	

L 27834-66 EWA(h)/EWT(1)

ACC NR: AP6007154

SOURCE CODE: UR/0108/66/021/002/0055/0069

AUTHOR: Prozorovskiy, V. Ye. (Active member); Afanas'yev, K. L. (Active member); Negodenko, O. N. (Active member)

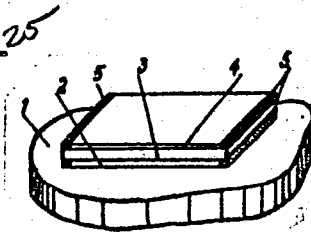
37
B

ORG: Scientific and Technical Society of Radio Engineering and Electrocommunication
(Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Calculation of film two-terminal networks with distributed parameters

SOURCE: Radiotekhnika, v. 21, no. 2, 1966, 55-69

TOPIC TAGS: thin film circuit, circuit microminiaturization



ABSTRACT: A thin-film distributed-RC-structure (see figure) is theoretically considered. Dielectric backing 1 is coated with resistive film 2, dielectric film 3 and resistive film 4; metal films 5 are intended for connecting external circuits. This structure is replaced with an equivalent diagram consisting of two resistors and one capacitor. Various connections of these elements yield ten different two-terminal networks. Formulas for $\text{Re} \tilde{Y}(\text{Re} \tilde{Z})$, $\text{Im} \tilde{Y}(-\text{Im} \tilde{Z})$, $\text{tg } \varphi$, and $|\tilde{Y}|$ for all networks are tabulated as are formulas for the equivalent parameters R_p , C_p , and $\text{tg } \varphi$ (for numerical calculations). Orig. art. has: 2 figures, 4 formulas, and 4 tables.

SUB CODE: 09 / SUBM DATE: 24Jul64 / ORIG REF: 000 / OTH REF: 003

Card 1/1 PB

UDC: 621.382.416

2

L 08962-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6021920 (A) SOURCE CODE: UR/0108/66/021/003/0077/0079

AUTHOR: Sementsov, V. I. (Active member of the society); Afanas'yev, K. L.
(Active member of the society) 60

ORG: Scientific and Technical Society of Radio Engineering and Electro-
communication im. A. S. Popov (Nauchno-tekhnicheskoye obshchestvo
radiotekhniki i elektrosvyazi)

TITLE: Effect of ferromagnetic coatings on film micro-inductance 25

SOURCE: Radiotekhnika, v. 21, no. 3, 1966, 77-79

TOPIC TAGS: circuit microminiaturization, ^{electric} ~~micro~~ inductance, microelectronic
thin film

ABSTRACT: The inductance of a thin flat single turn "coil" coated with a ferro-
magnetic on both sides is theoretically determined. Quasistationary and linear

Card 1/2

UDC: 621.318

L 08962-67

ACC NR: AP6021920

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approximations are used. Generally, the inductance of a single turn is given by:

$$L = \frac{2\pi}{l} [r_0 - (b+d)e^{-1.5}] A_\varphi \Big|_{r=r_0-(b+d)e^{-1.5}},$$
 where b and d are the width and height of the turn, respectively; r_0 its radius; A_φ is the current vector potential (a complicated integral formula). Analysis of a few particular cases shows that the thin ferromagnetic film increases the inductance of a single turn by a factor of 10 or more. Orig. art. has: 3 figures and 9 formulas.

SUB CODE: 09 / SUBM DATE: 30Mar65 / ORIG REF: 003 / OTH REF: 001

Cord 2/2 nst

17(2)

SOV/177-58-11-39/50

AUTHOR: Afanas'yev, K.M., Lieutenant-Colonel of the Medical Corps

TITLE: Experience of Dehelminthization With Heavy Doses of Sankafen and Rectal Introduction of Oxygen

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 11, pp 86 - 87 (USSR)

ABSTRACT: The author reports on the successful treatment of helminthiasis by sankafen and oxygen. The treatment with sankafen was carried out according to Ye.A. Panferova's one-day method. In the morning, 20 tablets of the preparation were administered in the empty stomach twice with a 1-hour interval. In 53 persons, ascarids passed the first day, in 38 persons the second day. Further observations were not carried out. In the 2-day treatment with rectal introduction of oxygen, the first day ascarids passed in 20 persons,

Card 1/2

S/262/62/000/011/019/030
1007/1252

AUTHOR Afanas'yev, K. N.

TITLE Experimental eight-stroke engine

PERIODICAL Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustanovki, no. 11, 1962, 58, abstract 42.11.295. (Tr. Srednaz. politechn. in-ta, no. 15, 1961, 147-157)

TEXT The problem is investigated of power regulation in carburetor-type automobile and tractor engines by varying the number of strokes. Experimental investigations confirmed the theoretical prediction that an eight-stroke engine is more economic than a four-stroke one. There are 4 figures and 3 references.

[Abstracter's note: Complete translation.]

Card 1/1

AFANAS'YEV, Kirill Nikolayevich--

Academic degree of Doctor of Arts, based on his defense, 11 February 1955, in the Council of the Inst of the History of Arts Acad Sci USSR, of his dissertation entitled: "The construction of architectural form by early Russian architects."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 21, 22 Oct 55, Byulleten' MVO SSSR, No. 19, Oct 56, Moscow, pp. 13-24, Uncl. JPRS/NY-536

AFANAS I. V.,

1905-1960

DECEASED

1905-1960

Botany

AFANASIYEV, L., doktor tekhn. nauk, prof.

Develop the research work in institutions of higher education.
Art. transp. 42 no. 683-4 S-164 (MIRA 17:87)

AFANAS'YEV, L.A.

ANTOSHIN, YeV

p 3

FRASE 1 BOOK EXPLANATION

807/1961

Spetsializirovannaya mashinostroyitel'naya zavoda v Avstribi tozshch.
V. 2. Tekhnologiya i stroitel'stvo mashin i mekhanicheskikh stroitel'stvo
v. 2. in two volumes. Vol. 2. Technology of Machine Operations) Moscow,
Mashgiz, 1958. vii, 1059 p. 40,000 copies printed.

Red. M.: Yu.S. Borisov, Engineer; M.: K.O. Topin, Engineer; Tech. Ed.:
I.Y. Sokolov; E.A. of Sci.: Yu.S. Borisov, Engineer, A.P. Vladimirov,
Doctor of Technical Sciences, and S.A. Rozhin, Candidate of Technical Sciences;
Managing Ed. for Reference Literature (Mashgiz): V.I. Krylov, Engineer.

PURPOSE: This handbook is intended for personnel responsible for repair and main-
tenance operations in a machinery-manufacturing plant.

CONTENTS: The handbook contains information pertinent to the organization of
repair and maintenance operations, design-preparation of maintenance work, and
economics of maintenance. Information on scientific research organizations and
plants participating in preparation of this volume is included in the coverage
of Volume 1 (807/1359). There are no references. Basic topics covered include
reconditioning and making of parts in maintenance operations; metal-working,
boring, and pipe-fitting; finishing operations involved in maintenance work;
checking parts for precision; basic bench and assembly work; maintenance of
power equipment; and maintenance of foundations.

Parts made of metal powders (Salitskiy, V.Y., Engineer)

Use of parts made of metal powders in maintenance of equipment
New materials
Technology of manufacturing parts from metal powders

Use and manufacture of nonmetallic parts and products in maintenance
of equipment

Parts made from plastic laminated wood (Budy, M.A., Engineer)
Plastic overlaid rays (Lapins, A.S., Candidate of Technical Sciences)
Friction members, friction discs, and rubberized belts
(Gusakov, M. M., Engineer) and Vetrinskiy, A.M., Engineer)

Protective rubber coatings (Borisov, Ia. S., Engineer)

Ch. II. Metalworking, Boring and Pipe-fitting Operations in
Maintenance of Equipment

Bench work assembly tools (Afanas'yev, L.A., Engineer)

Bench work tools

Mechanist's hammers

Chisels and pipe chisels

Card 10/26

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Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8953

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Inst : ~~Academy of Sciences~~ USSR

Title : Application of Electron Diffraction to the
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Orig Pub : Sb.: Stroyeniye stekla / Symposium on the
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found to contain the lines of Cu stannides
(CuSn, Cu₂Sn₆), the lines of cristobalite,

Card 1/2

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